

PATENT CLAIMS

1. (currently amended) A method for manufacturing continuous material made of a copper-based metal alloy, ~~according to which method said method comprising treating the continuous material is treated~~ at least in an oxide removal unit (3), where the oxides are removed from the continuous material surface by means of cathodic reduction, ~~such as including an anode (6), a cathode (5) and an electrolyte (11), characterized in that after the oxide removal unit (3), and then conducting the continuous material made of a copper-based metal alloy is conducted~~ into continuously operated extrusion treatment (4).
2. (currently amended) A method according to claim 1, ~~characterized in that wherein in the~~ cathodic reduction, the employed electrolyte (11) is sodium carbonate solution.
3. (currently amended) A method according to claim 1, ~~characterized in that wherein in the~~ cathodic reduction, the employed electrolyte (11) is sulfuric acid solution.
4. (currently amended) A method according to claim 1, ~~2 or 3,~~ ~~characterized in that wherein in the~~ cathodic reduction, the employed cathode (5) is an object made of a copper-based metal alloy, and the employed anode (6) is a non-soluble material.
5. (currently amended) A method according to claim 4, ~~characterized in that wherein the employed anode (6) is a non-soluble material, such as made of~~ platinum.
6. (currently amended) A method according to ~~any of the preceding claims, characterized in that claim 1, wherein in the~~ cathodic reduction, on the anode (6) ~~there is created oxygen is created~~ and on the cathode (5) ~~there is created~~ copper is created.
7. (currently amended) A method according to claim 4, ~~5 or 6,~~ ~~characterized in that wherein in connection with the anode (6), there is arranged at least one oxygen exhaust aperture (7) for enabling that enables~~ the exhaustion of oxygen.

8. (currently amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein in the cathodic reduction, ~~there is used~~ an ion-selective membrane is used (8) that is impermeable to oxygen.

9. (currently amended) A method according to claim 8, ~~characterized in that~~ wherein the membrane is placed between the anode and the cathode in order to prevent the oxygen from proceeding from the anode to the cathode.

10. (currently amended) A method according to claim 8 ~~or 9, characterized in that~~ wherein the membrane (8) is arranged symmetrically around the cathode, so that it surrounds the whole cathode (5).

11. (currently amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein an object made of a copper-based metal alloy is subjected to a preliminary washing prior to the cathodic reduction.

12. (currently amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein an object made of a copper-based metal alloy is subjected to etching by sulfuric acid prior to the cathodic reduction.

13. (currently amended) A method according to claim 12, ~~characterized in that~~ wherein sulfuric acid films are removed by mechanical drying.

14. (currently amended) A method according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein after cathodic reduction, the object is subjected to a rapid pressurized water washing.

15. (currently amended) A method according to claim 14, ~~characterized in that~~ wherein the oxide removal unit (3) and the working process (4) are insulated from the surroundings by protective gas.

16. (currently amended) An arrangement for realizing the method according to claim 1 for manufacturing continuous material made of a copper-based material,

said arrangement comprising at least an oxide removal unit, ~~characterized in that~~ wherein the arrangement includes elements for realizing a cathodic reduction, ~~such as~~ including an anode (6), a cathode (5) and an electrolyte (11), so that ~~the~~ access of the gas created on the anode to the cathode is prevented by a membrane (8) that is impermeable to oxygen and means for continuously operated extrusion treatment (4).